IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant:	Yamanoi, et al.	Docket:	TIJ-32715
Serial No.:	TBD	Examiner:	TBD
Filed:	Herewith	Art Unit:	TBD
For:	MIRROR DETECTION SIGNAL GENERATOR		

PRELIMINARY AMENDMENT

"EXPRESS MAIL" mailing label number EL645458305US I hereby certify that the Preliminary Amendment and the accompanying Application is being deposited with the United States Postal Service "Express Mail Post Office to Addressee" service under 37 § CFR 1 10 on the above-mentioned date and is addressed to the Assistant Commissioner of Patents, Box New Applications, Washington, DC 20231.

Allen B. Kroger — 2/8/02 DATE

Assistant Commissioner For Patents
Washington, D. C. 20231

Sir:

Before examination of the above-identified patent application, please make the following amendments:

IN THE CLAIMS:

Please amend claims 1 - 10 as follows:

1. (Amended) A mirror detection signal generator,

which generates a mirror detection signal from an RF signal corresponding the reflected light from a recording medium, comprises the following parts:

a first peak-hold circuit that holds the bottom level of said RF signal at a first attenuation rate and outputs a bottom-hold signal;

a second peak-hold circuit that holds the top level of said RF signal at a second attenuation rate and outputs a first envelope signal;

a third peak-hold circuit that holds the bottom level of said RF signal at a third attenuation rate and outputs a second envelope signal;

a first reference signal generator that outputs the first reference signal generated on the basis of said bottom-hold signal and said first envelope signal;

and a first comparator that compares said first reference signal with said second envelope signal and generates said mirror detection signal.

2. (Amended) The mirror detection signal generator described in Claim 1,

said first reference signal generator comprises a first voltage divider that divides the voltage of said bottom-hold signal and said first envelope signal.

3. (Amended) The mirror detection signal generator described in Claim 2,

said first reference signal generator comprises a first amplifier that amplifies said divided voltage at an amplification rate corresponding to the type of recording medium.

4. (Amended) The mirror detection signal generator described in Claim 3,

said first reference signal generator comprises an offset circuit that adds a prescribed offset voltage to the output signal of said first amplifier.

5. (Amended) The mirror detection signal generator described in Claim 1, further comprising

a filter that performs a prescribed signal processing for said second envelope signal, and

a second amplifier that amplifies said second envelope signal at an amplification rate corresponding to the type of recording medium.

6. (Amended) The mirror detection signal generator described in Claim 1, further comprising:

a fourth peak-hold circuit that holds the top level of said RF signal at a fourth attenuation rate and outputs a top-hold signal;

a second reference signal generator that outputs the second reference signal generated on the basis of said top-hold signal and said bottom-hold signal;

and a second comparator that compares said second reference signal and said first envelope signal and generates a defect detection signal.

7. (Amended) The mirror detection signal generator described in Claim 6,
said second reference signal generator comprises a second voltage divider that divides the voltage of said top-hold signal and said bottom-hold signal.

8. (Amended) The mirror detection signal generator described in Claim 7, wherein
said second reference signal generator comprises a third amplifier that amplifies the divided voltage output from said second voltage divider at an amplification rate corresponding to the type of recording medium.

9. (Amended) The mirror detection signal generator described in Claim 7 further comprising
a fourth amplifier that amplifies said first envelope signal at an amplification rate corresponding to the type of recording medium.

10. (Amended) The mirror detection signal generator described in Claim 6,
said first attenuation rate is increased when said defect detection signal is output.

Please ad new claims 11 - 20 as follows:

-- 11. (New) The mirror detection signal generator described in Claim 2, further comprising
a filter that performs a prescribed signal processing for said second envelope signal, and
a second amplifier that amplifies said second envelope signal at an amplification rate corresponding to the type of recording medium.

12. (New) The mirror detection signal generator described in Claim 3, further comprising
a filter that performs a prescribed signal processing for said second envelope signal, and

a second amplifier that amplifies said second envelope signal at an amplification rate corresponding to the type of recording medium.

13. (New) The mirror detection signal generator described in Claim 4, further comprising

a filter that performs a prescribed signal processing for said second envelope signal, and

a second amplifier that amplifies said second envelope signal at an amplification rate corresponding to the type of recording medium.

14. (New) The mirror detection signal generator described in Claim 2, further comprising:

a fourth peak-hold circuit that holds the top level of said RF signal at a fourth attenuation rate and outputs a top-hold signal;

a second reference signal generator that outputs the second reference signal generated on the basis of said top-hold signal and said bottom-hold signal;

and a second comparator that compares said second reference signal and said first envelope signal and generates a defect detection signal.

15. (New) The mirror detection signal generator described in Claim 3, further comprising:

a fourth peak-hold circuit that holds the top level of said RF signal at a fourth attenuation rate and outputs a top-hold signal;

a second reference signal generator that outputs the second reference signal generated on the basis of said top-hold signal and said bottom-hold signal;

and a second comparator that compares said second reference signal and said first envelope signal and generates a defect detection signal.

16. (New) The mirror detection signal generator described in Claim 4, further comprising:

a fourth peak-hold circuit that holds the top level of said RF signal at a fourth attenuation rate and outputs a top-hold signal;

a second reference signal generator that outputs the second reference signal generated on the basis of said top-hold signal and said bottom-hold signal;

and a second comparator that compares said second reference signal and said first envelope signal and generates a defect detection signal.

17. (New) The mirror detection signal generator described in Claim 5, further comprising:

a fourth peak-hold circuit that holds the top level of said RF signal at a fourth attenuation rate and outputs a top-hold signal;

a second reference signal generator that outputs the second reference signal generated on the basis of said top-hold signal and said bottom-hold signal;

and a second comparator that compares said second reference signal and said first envelope signal and generates a defect detection signal.

18. (New) The mirror detection signal generator described in Claim 8 further comprising

a fourth amplifier that amplifies said first envelope signal at an amplification rate corresponding to the type of recording medium.

19. (New) The mirror detection signal generator described in Claim 17,

said second reference signal generator comprises a second voltage divider that divides the voltage of said top-hold signal and said bottom-hold signal.

20. (New) The mirror detection signal generator described in Claim 19 further comprising

a fourth amplifier that amplifies said first envelope signal at an amplification rate corresponding to the type of recording medium. --

REMARKS

Entry and favorable action of the claims are earnestly solicited in light of the above amendments.

Applicants have amended the claims inter alia to avoid multiple dependent claims and to place the claims in the appropriate form.

Early action on the merits is respectfully requested.

Attached hereto is a marked-up version of the changes made to the specification and claims by the current preliminary amendment. The attached page is captioned **"Marked-up version to show changes."**

Applicant respectfully requests that a timely Notice of Allowance be issued in this case.

Respectfully submitted,

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Marked-up version to show changes:

CLAIMS

1. (Amended) A mirror detection signal generator, ~~characterized by the fact that~~

~~the mirror detection signal generator,~~ which generates a mirror detection signal from an RF signal corresponding the reflected light from a recording medium, comprises the following parts:

a first peak-hold circuit that holds the bottom level of said RF signal at a first attenuation rate and outputs a bottom-hold signal;

a second peak-hold circuit that holds the top level of said RF signal at a second attenuation rate and outputs a first envelope signal;

a third peak-hold circuit that holds the bottom level of said RF signal at a third attenuation rate and outputs a second envelope signal;

a first reference signal generator that outputs the first reference signal generated on the basis of said bottom-hold signal and said first envelope signal;

and a first comparator that compares said first reference signal with said second envelope signal and generates said mirror detection signal.

2. (Amended) The mirror detection signal generator described in Claim 1, ~~characterized by the fact that~~

said first reference signal generator comprises a first voltage divider that divides the voltage of said bottom-hold signal and said first envelope signal.

3. (Amended) The mirror detection signal generator described in Claim 2, ~~characterized by the fact that~~

said first reference signal generator comprises a first amplifier that amplifies said divided voltage at an amplification rate corresponding to the type of recording medium.

4. (Amended) The mirror detection signal generator described in Claim 3, ~~characterized by the fact that~~

said first reference signal generator comprises an offset circuit that adds a prescribed offset voltage to the output signal of said first amplifier.

5. (Amended) The mirror detection signal generator described in Claim 1, ~~2, 3 or 4, characterized by the fact that it comprises~~ further comprising

a filter that performs a prescribed signal processing for said second envelope signal, and

a second amplifier that amplifies said second envelope signal at an amplification rate corresponding to the type of recording medium.

6. (Amended) The mirror detection signal generator described in Claim 1, ~~2, 3, 4 or 5, characterized by the fact that it comprises~~ further comprising:

a fourth peak-hold circuit that holds the top level of said RF signal at a fourth attenuation rate and outputs a top-hold signal;

a second reference signal generator that outputs the second reference signal generated on the basis of said top-hold signal and said bottom-hold signal;

and a second comparator that compares said second reference signal and said first envelope signal and generates a defect detection signal.

7. (Amended) The mirror detection signal generator described in Claim 6, ~~characterized by the fact that~~

said second reference signal generator comprises a second voltage divider that divides the voltage of said top-hold signal and said bottom-hold signal.

8. (Amended) The mirror detection signal generator described in Claim 7, ~~characterized by the fact that~~ wherein

said second reference signal generator comprises a third amplifier that amplifies the divided voltage output from said second voltage divider at an amplification rate corresponding to the type of recording medium.

9. (Amended) The mirror detection signal generator described in Claim 7 ~~or 8, characterized by the fact that~~ further comprising

~~it comprises~~ a fourth amplifier that amplifies said first envelope signal at an amplification rate corresponding to the type of recording medium.

10. (Amended) The mirror detection signal generator described in Claim 6, ~~7, 8 or 9, characterized by the fact that~~

~~when said defect detection signal is output,~~ said first attenuation rate is increased when said defect detection signal is output.